

What exactly is a 100-year flood?**By: Ginger Morgan****DNR Division of Water****Phone: 317-234-1150 (business hours)****Email: Gmorgan@dnr.state.in.us****5-7-03**

The phrase “100-year flood” still befuddles many citizens, as well as lenders and insurers. Many mistakenly think it’s a description of a flood that occurs once every 100 years. Instead, “100-year flood” is an abbreviated way of describing the magnitude of rainfall and subsequent flood event that has a one percent or greater chance of occurring in any given year.

Floods get classified according to their frequency and depth. Classifications bandied about by the National Flood Insurance Program (NFIP) include 10-year, 25-year, 50-year, 100-year, and 500-year floods. A 100-year flood occurs less frequently than a 10-year flood (obviously). But because a 100-year flood carries more volume and depth of water, it’s far more destructive, and presents a more serious threat to human safety.

The NFIP adopted as a national standard a “100-year floodplain” to describe Special Flood Hazard Areas (SFHAs). They show up on the Flood Insurance Rate Maps (FIRMs) as Zone A.

Due to the confusion it created, the “100-year floodplain” has been renamed “base flood.” Base Flood Elevations (BFEs) are listed on the flood insurance rate maps and are used on elevation certificates to indicate the expected depth of water should a flood occur. In Indiana, the lowest floors of new buildings constructed in flood hazard

areas sit at or above the Flood Protection Grade (FPG), which is two feet above the base flood elevation listed for that location on the current rate map. The chart below shows the statistical chances of flooding a building located in one of these higher-risk areas over different periods of time.

Buildings located in 100-year flood areas must have flood insurance in order to receive a federally backed mortgage loan or home equity loan. Given that many mortgages have a repayment period of 30 years, buildings in areas subject to a 100-year flood have a 26 percent chance of experiencing a flood during the life of the loan. (Interestingly, during that same period, there's only a 4 percent chance of a fire.)

Next time you hear a resident of a 100-year floodplain say something like "I don't have to worry about another flood for 97 years, since the last 100-year flood was three years ago," explain the real meaning of a 100-year flood and impress them with your vast technical knowledge.

This information, paraphrased from the National Flood Insurance Program's Watermark (Fall/Winter 1998 issue), comes from the Department of Natural Resources (DNR) Division of Water. The DNR Division of Water operates from a central office in downtown Indianapolis. The division is dedicated to water use management and accomplishes this goal in many ways: by keeping records on water wells, by evaluating applications for permits to build in a floodway, by assessing groundwater (amount and quality), by helping create new conservancy districts and river basin commissions around the state, and by offering technical advice on a wealth of topics.

To reach the Division of Water, call 317-232-4160 during business hours, or
access Web site <http://www.IN.gov/dnr/water/>

Chances of being flooded

Period of Time	10-Year Flood	25-Year Flood	50-Year Flood	100-Year Flood
1 year	10%	4%	2%	1%
10 years	65%	34%	18%	10%
20 years	88%	56%	33%	18%
30 years	96%	71%	45%	26%
50 years	99%	87%	64%	39%

(source: NFIP Watermark, Fall/Winter 1998)

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